



EF151LUD

USER MANUAL

1 Safety Information

1.1 Overview

This baler should only be used by competent personnel who have been adequately trained in correct baler operation and who have read and are familiar with the information contained in this manual.

The EF151 complies with relevant directives as stated on declaration of conformity.

During normal operation no protection guards or safety devices should be removed or interfered with in any manner.

EF balers are designed so that, where possible, all moving parts are enclosed during operation to ensure operator safety. The operator should ensure that the motion of the baler endangers no other person. In particular the operator should ensure that nobody is inside the baler when it is being used. Do not attempt to interfere with any of the covers, switches, doors or any other part of the machine.

If it is necessary to remove any guard, the machine should be isolated.

Care must also be exercised in the following situations:-

Opening and closing the doors. When compacted material is in the baler, the door can be under considerable pressure and as such care must be taken when opening.

Compacting material. Prior to compaction the operator should always satisfy themselves that no person or animal is in the compaction chamber and that no-one is going to be injured by their action.

Bale handling. Proper lifting techniques should always be used to handle the bale. Bales in excess of 20 kg should not be lifted without using suitable lifting equipment e.g. bale trolley, forklift truck.

Machine handling. If it is necessary to move the baler it should be moved in accordance with fig. 3 using a suitable forklift truck or pallet truck.

Toxic material or potentially explosive material should *not* be compacted. At all times adequate ventilation should be provided around the machine and, if the material will give rise to dust or it is deemed necessary for any other reason, then suitable respiratory equipment and protective clothing should be worn depending on the material being compacted. This should be assessed by the end user and appropriate action taken.

1.2 Safety signs mounted on the machinery

Signs are mounted in certain places on the machine, which warn of danger zones where special care is recommended. The safety instructions must be implemented without fail, otherwise safe operation of the baler cannot be guaranteed. The safety instructions must not be painted over, removed or altered in any way. Signs which have become illegible, damaged or have been removed should be replaced at once.

Warning – Dangerous Electrical Current



Touching the Current carrying parts can lead to instant death
Covers which are marked with this sign can only be removed
by a technician after the relevant electric feed has been
switched off.

3 Operating Instructions – EF151

3.1 General Operation EF151

Always load the material evenly in the machine

Step 1. Open both doors

Step 2. Feed cord through slots in the back of the baler, along channels of floor, and loop ends onto hooks. Close bottom door.

Step 3. Fill cardboard into chamber.

Step 4. Close door.

Step 5. Press cycle button - baler will automatically compress cardboard and return to starting position.

Step 6. Open top door.

Step 7. Repeat step 3-5 until there is enough material to complete one bale.

Step 8. Draw cord from the rear of the baler over the top of the cardboard.

Step 9. Cut rope leaving enough length to tie bale and place other end of cord on top of bale where it will not become trapped in bale through the top door opening. Close top door.

Step 10. Press tie button.

Step 11. Once machine has stopped, open both doors then tie bale.

Step 12. Press and hold the two tie buttons simultaneously, bale will eject.

Step 13. Remove bale and close door.

Step 14. Re thread rope in slots and close main door.

Step 15. Restart cycle.

3.2 EF151 – with lift up door

Please Note:

Always release lift up door when not in operation.

Lubricate the inside of lift up channels with light oil.

1. Open main door ensuring the lift up door is already opened.
2. Feed cord through slots in the back of the baler, along channels of floor, and loop ends onto hooks. Close main door.
3. Fill void with cardboard. Slide down lift up door (the electromagnet will automatically hold the lift up door in place).
4. Press cycle button - baler will automatically compress cardboard and return to starting position.
5. The machine will automatically release the lift up door to an open position.
6. Repeat steps 3 to 5 until there is enough material to complete one bale.
7. Draw cord from the rear of the baler over the top of the cardboard.
8. Cut rope leaving enough length to tie bale and place other end of cord on top of bale where it will not become trapped in bale through the top door opening. Close lift up door.
9. Press tie button.
10. Once machine has stopped, press the stop button to open the top door then open the main door and tie bale.
11. Press and hold the two tie buttons simultaneously, bale will eject.
12. Remove bale and close door.
13. Re thread rope in slots and close main door.
14. Restart cycle.



4 User Guide

ELEPHANTS FOOT Single Chamber EF151

User information

Please read this carefully before using your EF151 Baler and keep it in a safe place for future reference.

4.1 Operation

EF Balers are designed for ease of use. The waste is filled into the chamber through the open top and compaction is achieved by pressing a single button. The compaction cycle takes no longer than 90 seconds. Once sufficient waste has been compacted to form a bale, the bale is tied and removed from the baler. The baler should not be operated continuously without putting waste in, or tying a bale between cycles. Before operating ensure no animals or children are inside the machine.

The EF151 Baler is designed to compact packaging waste especially cardboard & plastic.

It gives you a number of advantages including:-

- saves space
- tidy workplace
- reduces the time spent managing waste
- reduces waste disposal costs
- facilitates recycling
- helps to protect the environment

4.2 Installation

EF151 balers use a 13-amp socket.

Machines should be installed indoors. For use in damp conditions an *earth leakage circuit breaker* must be used.

Machines should be installed on level, stable ground

Adequate ventilation should be provided around the machine. No attempt should be made to block ventilation paths on the machine.

If machine is to be moved after initial installation, this should be done by a competent person using either a pallet truck or forklift truck.

4.3 Handling

For transportation the press head should always be in the fully down position. The baler should at all times remain horizontal.

The EF151 baler can be lifted from the side of the machine with a fork lift or pallet truck. A competent operator of a fork lift truck must perform all handling.

4.4 Restrictions on use

EF balers are designed to compact packaging waste, e.g. cardboard and plastic. It is recommended that the following waste is not put in the baler:-

1. Glass. For safety reasons glass should not be placed in a EF Baler.
2. Solids e.g. bricks, pieces of wood. Such items will not compress and could damage the machine.
3. Liquids. These will not compress and give rise to unnecessary mess.

4.5 Troubleshooting

Before telephoning for service read through the following information.

1. Machine will not operate

- With the top door open look at the lights on the control panel. If the lights on the control panel are NOT lit:
 - Check the socket. Will other electrical appliances operate from it?
 - Disconnect the baler from the electrical supply and check the fuse (13 amp).
 - Check the supply lead for damage.

Step 1. If two LEDs are flashing then the door safety switch is not properly engaged. Close the top door properly.

Step 2. If all three LEDs are flashing then the temperature safety switch has cut out to protect the machine. Leave for 30 mins to allow cooling and then try again. If this problem persists, stop using the baler and contact EF International Ltd.

2. Guards

EF balers are designed so that all moving parts are enclosed during operation to ensure operator safety. Do not attempt to interfere with any of the covers, switches, doors or any other part of the machine.

3. Hydraulic oil

The level of hydraulic oil should be checked every year. With the press plate in the raised position oil level should be approximately 35mm from the top of the tank. If an oil leak becomes apparent do not use the machine.

4. Routine cleaning

The interior and exterior of the EF Baler should be kept clean using a damp cloth. Do not use a power hose to remove dirt.

4.6 Maintenance

A record of all maintenance should be logged in the maintenance record.

When performing maintenance or repairs to the machine, or if for any reason a guard should be removed, then the machine must be isolated.

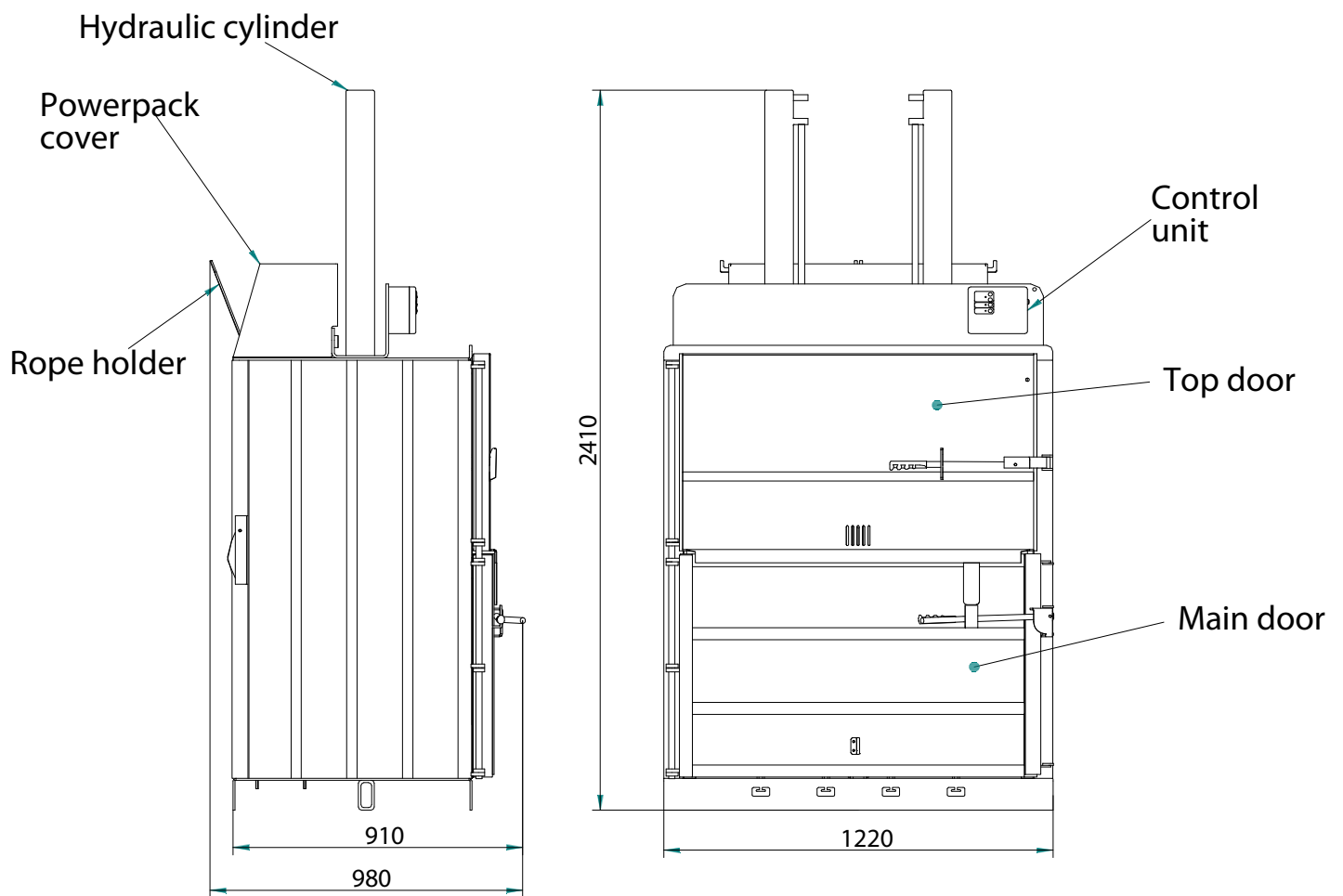
Bi-monthly: - Check safety switches.
Check wires for any damage.
Check all hydraulic connections for leaks. If any leaks are apparent, fitting should be tightened or if necessary the hose replaced.
Check oil level. With cylinders returned, oil should be approximately 35mm from the top of the tank.
Grease all grease nipples
Check all fittings are in place and secure.
Check the door closing mechanism is in good working order.
The interior and exterior of the EF baler should be kept clean. Do not use a power hose to remove dirt.

Annually: - Hydraulic oil should be replaced.
This may be required twice a year if operating in very dusty conditions.
Hydraulic oil used is Renolin PW32.

A competent person should perform oil and filter changes and any other fitting work.

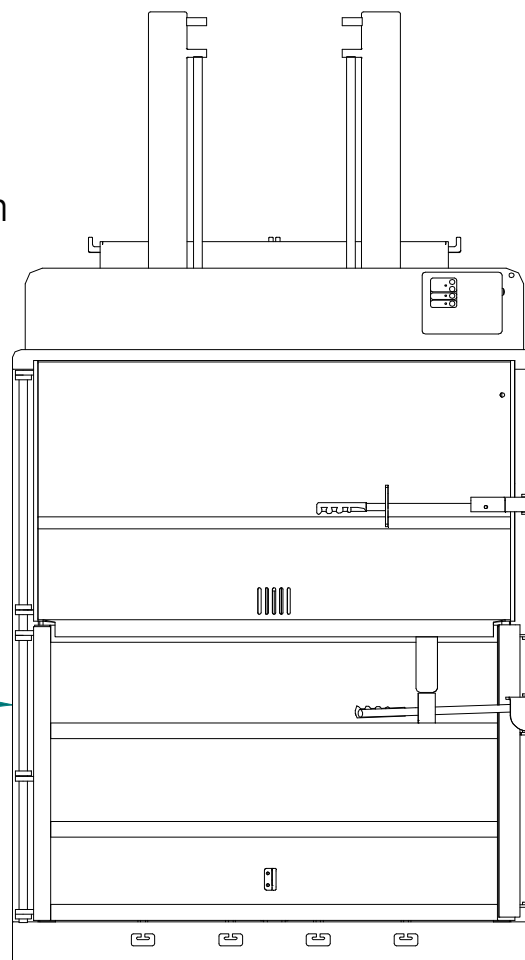
4.9 Mechanical Spare Parts





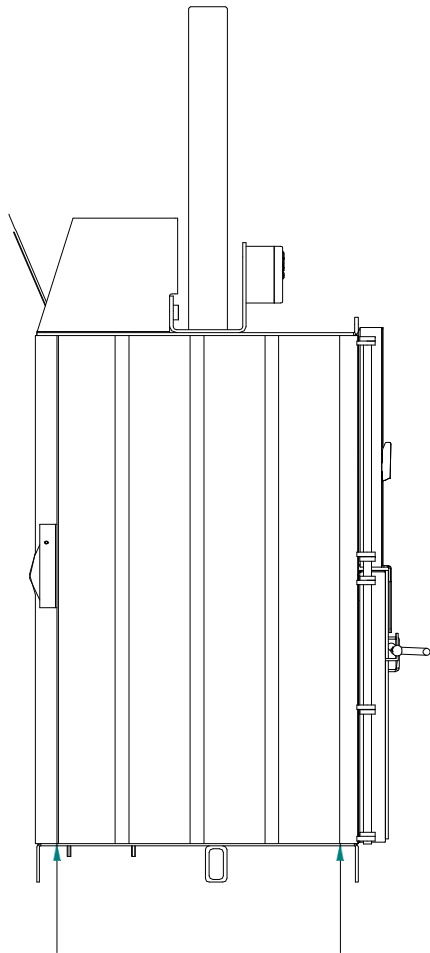
Proper lifting techniques
should always be used when
handling a completed bale

Always ensure there is
no one in chamber prior
to compaction

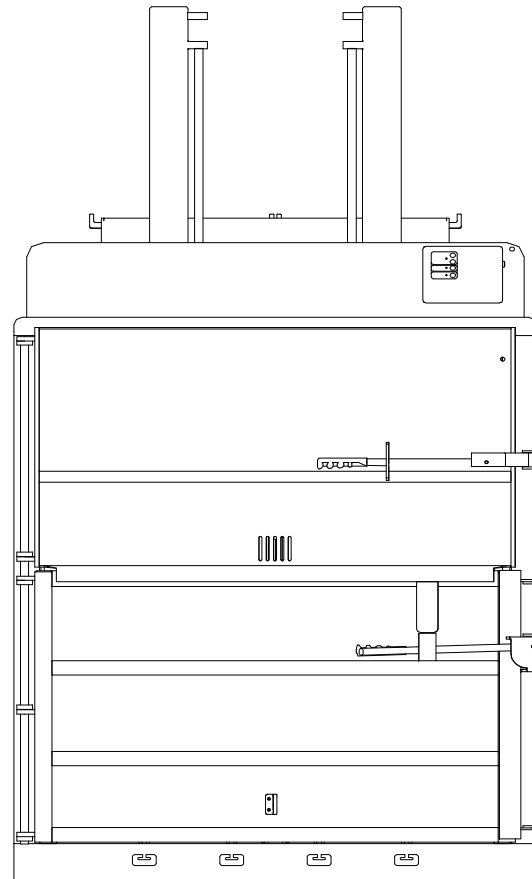


Nip zones around
door closing

Extreme care must be taken when
operating with the door open for bale
ejection

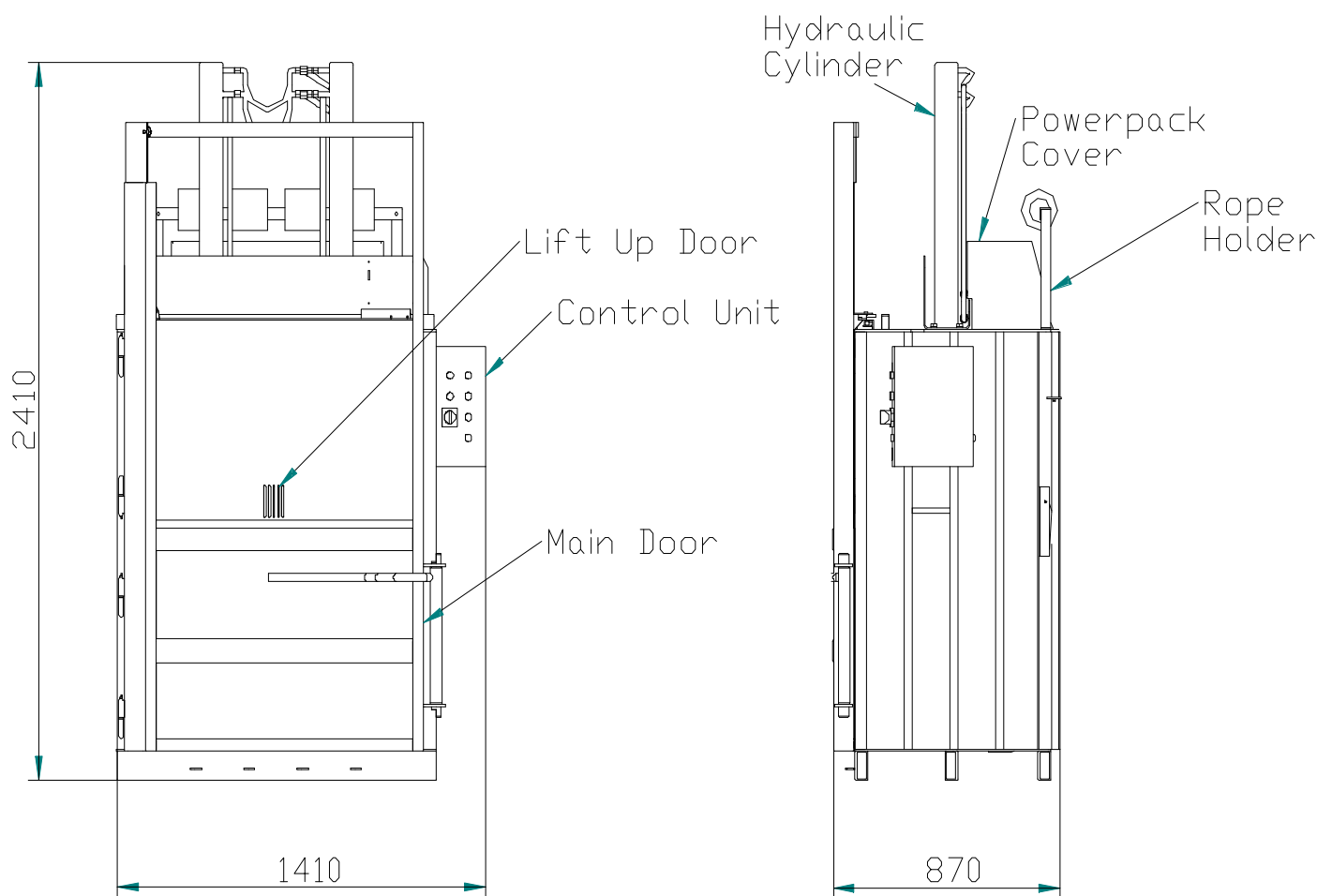


Fork here
Always keep forks as wide as possible

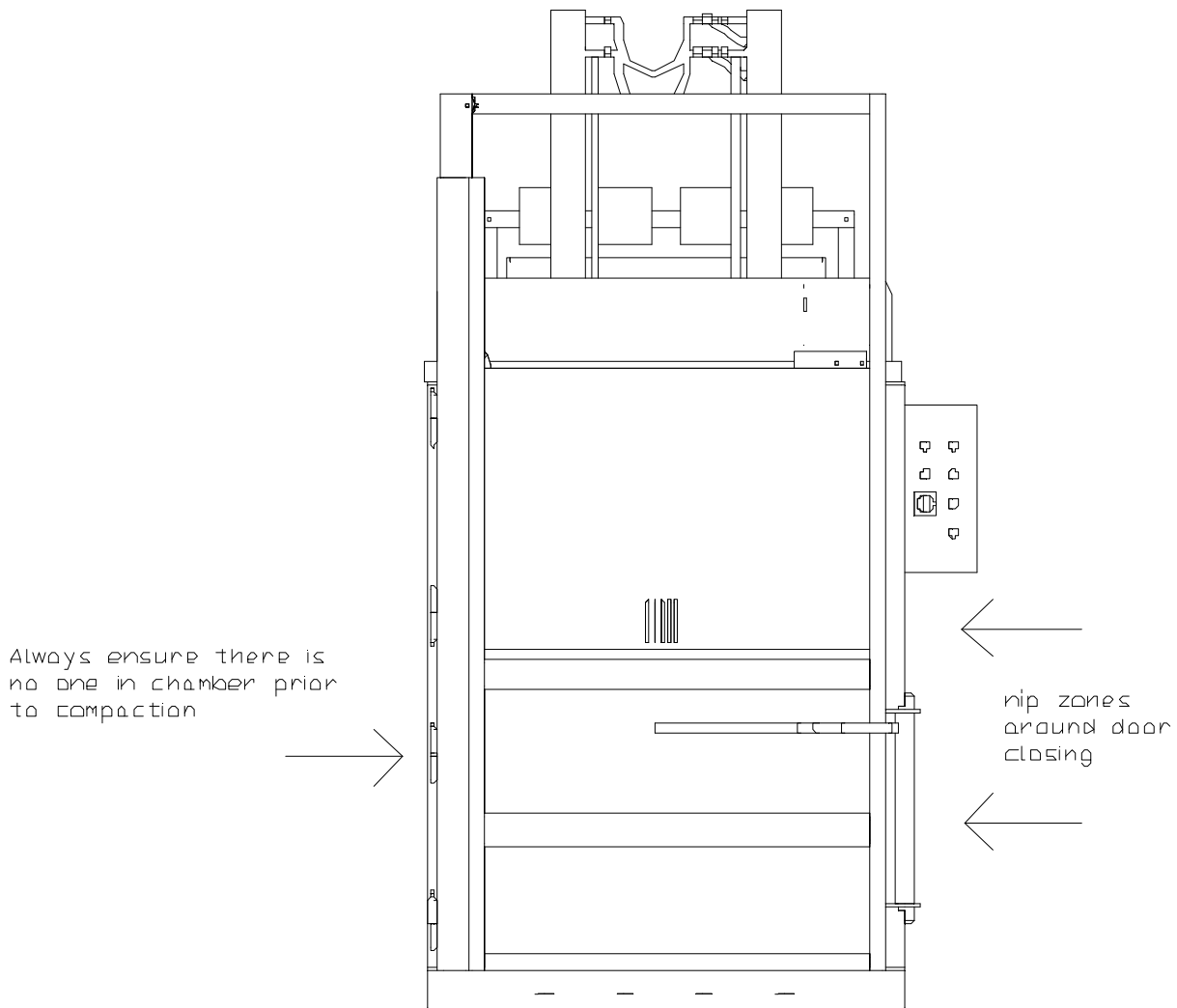


Keep pressplate in the
lowered position for moving
the machine

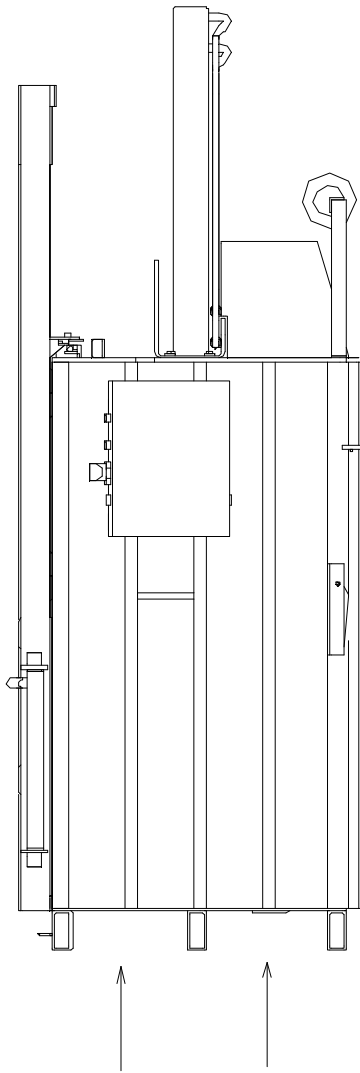
Alternatively the machine can be
lifted with a forklift through the
open top door, care must be taken
to avoid switches



Proper lifting techniques should always be used when handling a completed bale

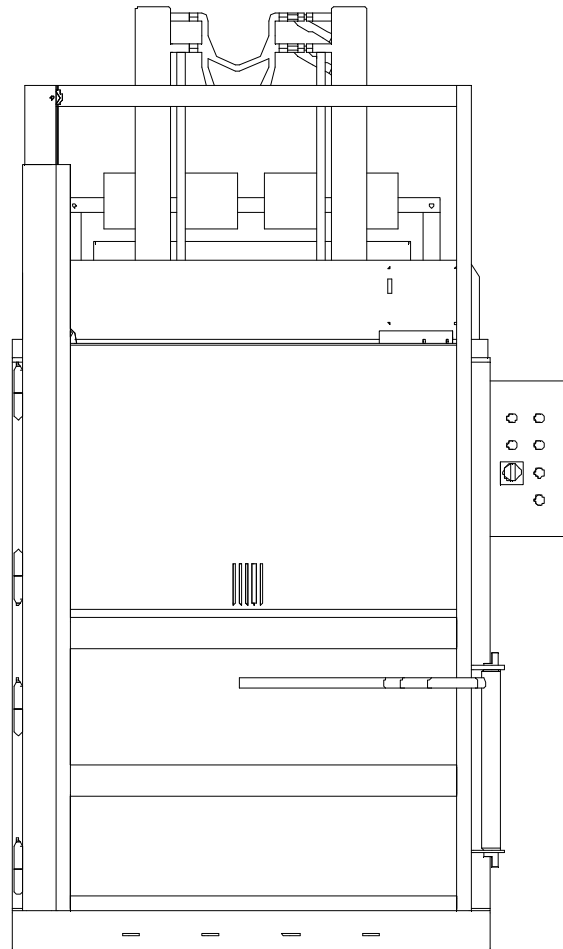


Extreme care must be taken when operating with the door open for bale ejection



Fork here
 Always keep forks as wide as possible

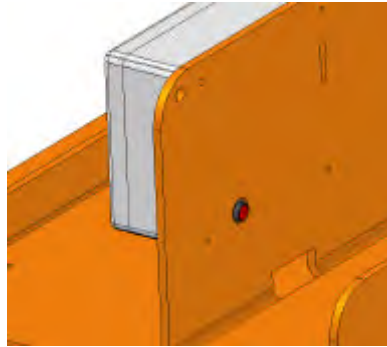
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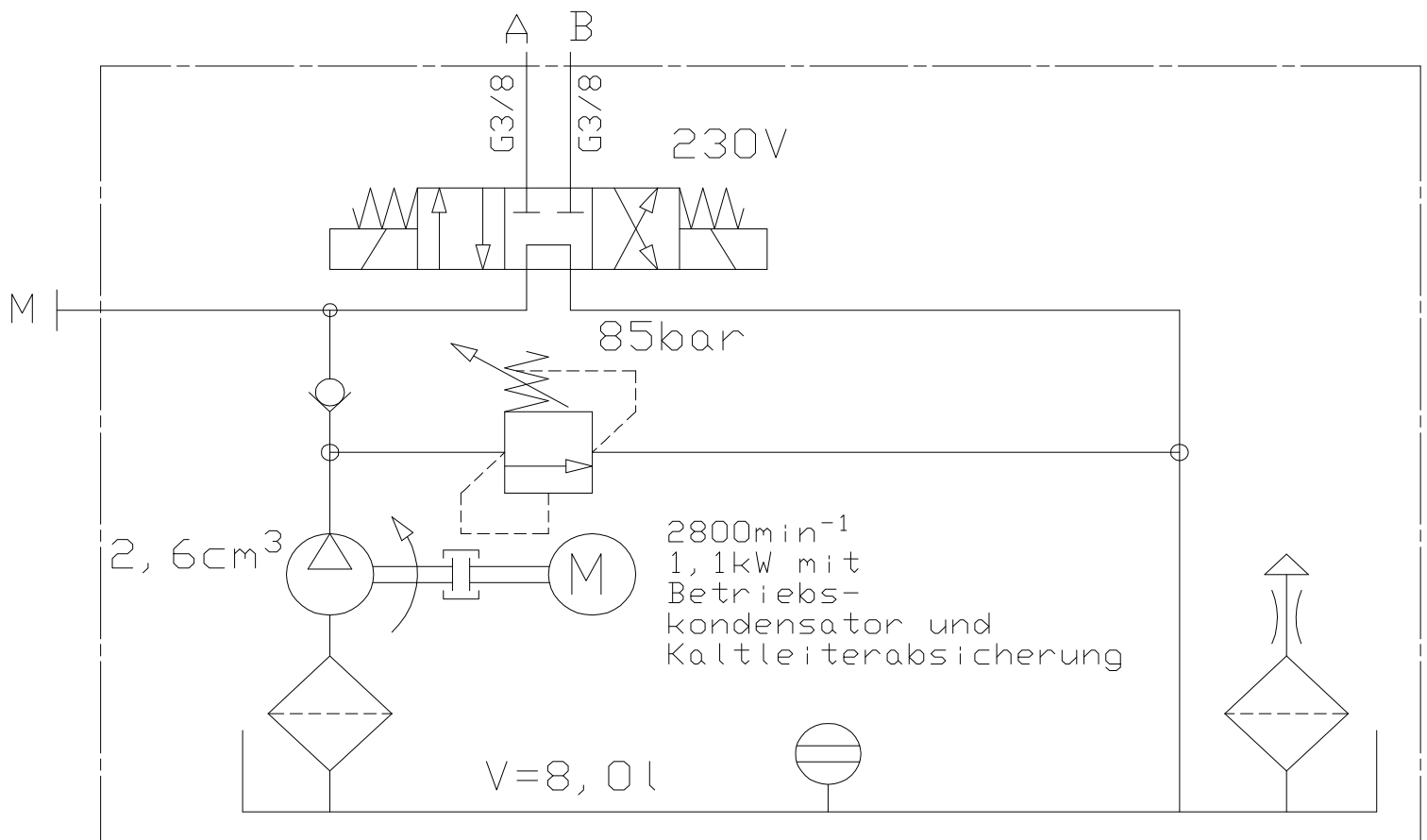
Keep pressplate in
 lowered position for
 moving machine



Second tip button



Model Shown complete with additional Bale full and E-stop



Risk Assessment for Vertical Balers

- Likelihood**
5- frequent - weekly
4- occasional - monthly
3- infrequent 2/3 per year
2- probable - annual
1- improbable

Severity
5- fatality and/or major damage and major costs
4- major reportable injury and/or very high damage repair costs
3- injury with time lost and/or high damage repair costs
2- minor injury and/or low cost damage to plant/equipment etc
1- minor damage to plant/equipment/buildings
- Risk Rating:- Likelihood x Severity**
20 / 25 - Urgent, immediate action
12,15,16 - High priority action
8,10 - Medium priority action
4,5,6 - Low priority action
1,2,3 - No action, low priority

Source of Hazard	Nature of Risk	Proposed Control Measures	Machine affected	Risk Rating on Implementation		
				Likeli - hood	Severity	Risk rating
Machine size	Machine tipping over	Machine should only be installed on level, firm ground and under these circumstances the machine is perfectly stable. During handling the machine should not be allowed to tilt anymore than 5 degrees.	EF151 range, EF250 Range, EFVX Range and EF500 range.	1	4	4*
Machine construction	Cutting/Severing/Shearing of machine components	There are no components that are likely to break-up during foreseeable operation.	EF151 range, EF250 Range, EFVX Range and EF500 range.	-	-	-
Machine construction	Sharp edges	All sharp edges are de-burr and/or rounded.	EF151 range, CK250 Range, EFVX Range and EF500 range.	-	-	-
Machine operation	Noise	Follow the Noise at work regulation 2005 to minimise risk due to noise.	EF151 range, EF250 Range, EFVX and EF500 range.	2	2	4
Machine operation	Heat transfer through fluids and equipment	Under normal working conditions the machine should not dissipate enough heat to harm user.	EF151 range, EF250 Range, EFVX Range and EF500 range.	1	2	2
Machine operation	Movement of parts	There is access to the moving press plate through the slots used for tying, and the slots in the top door. These are sufficiently narrow to keep hands out. In addition the press plate is travelling very slow and is therefore avoidable.	EF151 range, EF250 Range, EFVX Range and EF500 range.	1	2	2
Machine malfunction	Risk due to fire	The only components that could conceivably give rise to a fire are the electrical components and these are designed in accordance with the low voltage directive 2006.	EF151 range, EF250 Range, EFVX Range and EF500 range.	1	3	3
Machine operation	Injury to operator when tying the bale	When tying a bale protective gloves and safety glasses must be worn. To aid cutting twine a safety knife is bolted to the door.	EF151 range, EF250 Range, EFVX Range and EF500 range.	1	3	3*
Machine operation	Entrapment	Interlock on loading door to prevent access to any working parts. The operator should always check that there is no person or animal in the chamber before compacting.	EF151 range.	1	5	5*

Risk Assessment for Vertical Balers

Likelihood

- 5- frequent - weekly
- 4- occasional - monthly
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Severity

- 5- fatality and/or major damage and major costs
- 4- major reportable injury and/or very high damage repair costs
- 3- injury with time lost and/or high damage repair costs
- 2- minor injury and/or low cost damage to plant/equipment etc
- 1- minor damage to plant/equipment/buildings

Risk Rating:- Likelihood x Severity

- 20 / 25 - Urgent, immediate action
- 12, 15, 16 - High priority action
- 8, 10 - Medium priority action
- 4, 5, 6 - Low priority action
- 1, 2, 3 - No action, low priority

Source of Hazard	Nature of Risk	Proposed Control Measures	Machine affected	Risk Rating on Implementation		
				Likeli - hood	Severity	Risk rating
Machine operation	Entrapment	A magnet switch on the loading door prevents access to any working parts. The operator should always check that there is no person or animal in the chamber before compacting.	EF250 Range, EFVX and EF500 range.	1	5	5*
Bale removal	Slips/Trips/Falls	For machines with automatic tip the baler door prevents casual access from one side. If operator releases one button the eject operation stops. Safe working areas are documented in the user manual.	EF151 range, EF250 Range, EFVX and EF500 range.	2	3	6*
Bale handling	Slips/Trips/Falls	Bales over 25kg should be removed by trolley. Any larger bale should be tipped onto a pallet and removed with either a forklift or pallet truck.	EF151 range, EF250 Range, EFVX Range and EF500 range.	2	2	4*
Bale Ejection	Risk due to moving parts	The pressplate will rise and the bale will be ejected when tipping, this cycle can not happen unless the operator is on one side with two hands on the tip switches. Any other personnel must stand well clear of the open door	EF151 range, EF250 Range, EFVX and EF500 range.	1	4	4

* Installation and operation procedures must be followed

Signed_____



Baler Training Record

Machine Serial Number:

Owner:

Training Date: Instructor:

We certify that we have undergone an initial training session on the above machine. We are satisfied that the safe method of working with the machine has been explained to our satisfaction. We feel confident in safely operating the machine in the following areas:

Safe method of connecting / disconnecting power supply
Safe use of operational controls
Safe loading of machine
How to form a bale and tie straps
How to safely remove the bale from the machine
Machine safety features

Name	Date	Position	Instructor	Operator Signature